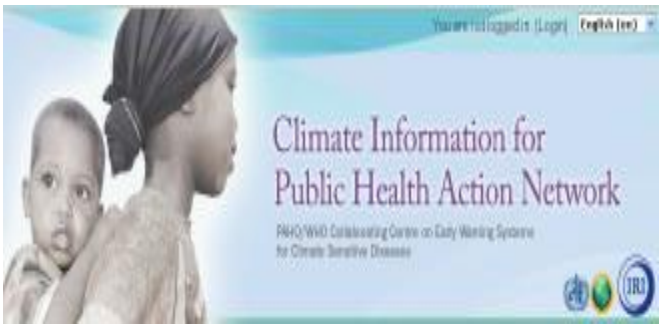
Climate Information for Public Health Action (CIPHA)

Summer Institute

News from the Ground

May 2010

Vol. 2 Issue 3



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This newsletter provides updates on the latest developments within the CIPHA network, including the activities of alumni and facilitators, brief meeting reports, news from the health and climate community, and opportunities for collaboration.

From the Editors

As we prepare for the third Summer Institute on Climate Information for Public Health, we'd like to this chance to reflect on our reasons for developing the Summer Institute in addition to providing updates on the work of our alumni, facilitators, and the Climate and Health Working groups.

The Summer Institute grew out of the recognition of major gaps in the knowledge, methodologies, tools, data and resources available to the public health community in their quest to better manage climate-related risks to improving public health outcomes. This includes a lack of educational and practitioner texts, tools, methodologies and data that can be used to build an appropriate evidence-base of the value of climate information to the public health sector. To meet this need, the SI started building curricula and learning networks that participants can use, refine and deliver in their own communities.

We are currently developing a curriculum on Climate and Public Health. We are also working to create a Climate Information for Public Health Action network to provide public health professionals with knowledge, methodologies, tools, and data to better manage climate sensitive diseases and improve health outcomes. Those of you who may wish to engage in the development of curricula and learning networks should please contact Gilma Mantilla (mantilla@iri.columbia.edu)

It's important to note that global information can only help inform real-world public health decision-making when combined with knowledge of its local relevance or integration with local data and context. A mismatch between global and local knowledge currently limits research capacity to target public health challenges in both the Northern and Southern hemispheres. Creating an international network of public health professionals, researchers, and communities of practice that share best practices and lessons learned from both hemispheres helps to overcome these limitations.

Based on the response of previous Summer Institute alumni, the International Research Institute for Climate and Society and its partners (Mailman School of Public Health and CIESIN believe this training course is a valuable platform for creating a global network of practitioners focused on policy and practice in public health and climate issues. We hope to continue offering this kind of course in order to continue to bridge the climate information gaps experienced by the public health community,

'Bridging the Gap between Climate and Public Health'

The International Research Institute for Climate and Society

IRI is a WHO/PAHO Collaborating Center for Climate Sensitive Diseases

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Updates

Alumni



SI08 alumna Joy Guillemot is a technical officer in climate and health at the World Health Organization in Geneva, Switzerland. Joy is working to launch WHO's first global pilot project on public health adaptation to climate change, along with UNDP, with funding from the Global Environment Facility (GEF) - Special Climate Change Fund (SCCF).

This series of pilot projects in seven countries aims to "*increase adaptive capacity of national health system institutions, including field practitioners, to respond to climate-sensitive health risks.*" The project will be executed by ministries of health and other relevant national partners in Barbados, Bhutan, China, Fiji, Kenya, Jordan, and Uzbekistan. Each country team has selected different climate-sensitive health priorities to focus on, but all projects aim to: enhance systems of early warning and early action; build capacity of national actors to make decisions based on early warning systems; pilot specific health risk reduction interventions; and document and share lessons learned in addressing the health risks associated with climate change.

Across the range of approaches utilized, the project will identify best practices and common challenges to address health risks associated with climate variability and change. The project will significantly contribute to development of technical resources, networks, and learning mechanisms to support countries worldwide in the protection of health from climate risks. More information: http://bit.ly/aukYKk





SI08 alumna and SI09 facilitator Laurence Cibrelus – SI 09 facilitator Remi Cousin were in Antananarivo, Madagascar to facilitate Madagascar's second Climate Information for Public Health (CIPH) Workshop, "Learning Through Doing Project: Cross-Training Workshop for the National Meteorological and Hydrological Service (MetSer) and Ministry of Health (MoH) Staff in the Use of Meteorological, Climate and Health Data." Laurence and Remi also facilitated Madagascar's first CIPH workshop in October 2009. Both workshops were made possible by partnerships formed with the Malagasy's Climate and Health Working Group (CHWG), WMO, WHO, the Pasteur Institute (IMP), MoH and MetSer. Since the first workshop, small projects have been implemented by disease subgroups, further enriching the cross-training (based on the CIPH curriculum developed for the Summer Institute held at IRI) with local data and local needs. The 5-day workshop also featured sessions aimed toward the CHWG's scientific and financial autonomy, such as a WHO presentation on successful proposal writing and a presentation of an IDRC (Canada) call for a health and climate proposal. Future work planning, which includes initiatives to involve local universities, was enhanced by the signing of MoUs formalizing IRI's partnership with MetSer and with the MoH, an event which took place on World Meteorological Day (March 23) with the respective services' director-generals, and coverage by national TV, radio and print outlets. The WHO and the IPM were also represented. Support for this workshop was provided by WMO. For more details, refer to "From the Editors", CIPHA Vol. 2 Issue 1.



Madagascar-training alumna 09, 10 Yolande Nirina Raoelina Rajaona is a member of Climate and Health Working Group, Madagascar. She participated in the First Conference of Ministers Responsible for Meteorology in Africa. According to Yolande, Africa has seen the emergence of seven new diseases in the past decade, all of which have the capacity to become epidemics. She also noted that with erratic rainfall patterns and the emerging threat of climate change, both of which affect human health, there is a need for the health sector to work more closely with meteorologists, hydrologists, and climatologists. Two signatories have signed the partnership protocol since the CHWG creation in 2008, between the ministries in charge of health, meteorology and veterinary medicine and the international partners in the framework of the development and execution of the two-year project. A two-session training on the utilization of meteorological and climate data for health was given by IRI facilitators to members of the working group and auditors. Projects dedicated to those diseases were established by creating subgroups of health and meteorology staff aimed at specific objectives. These projects are currently ongoing. Monthly meteorological bulletins were delivered to health staff in 2009; this will be continued every three months in 2010. The information is then broadcast to health staff in the regions for them to apply appropriate actions for health.

Facilitators



SI08 and SI09 facilitator Simon Mason participated in the project kick-off meeting for ViGIRisC (the French acronym for the African Early Warning and Advisory Climate Services Project). ViGIRisc is a three-year French-funded project to be implemented by the African Centre of Meteorological Application for Development (ACMAD); its aim is to mitigate the risks associated with climate variability in Africa through early warning systems and services for the region's climate-sensitive sectors. ViGIRisc relies on the collaboration of sectoral stakeholders and the meteorology community to identify the products and services to be strengthened or developed. The two-day workshop, held March 24-25, 2010 in Addis Ababa, included keynote speeches and presentations of case studies on the project's theme; it also included breakout sessions on identifying needs and framing a plan of action, as well as other associated foundational tasks. Simon's presentation to the workshop body was entitled "Case Study on Early Warning Systems: Climate and Health."

Climate and Health Working Groups

Ethiopia

Abere Mihretie participated in the First Conference of Ministers Responsible for Meteorology in Africa as a representative of the Climate and Health Working Group, Ethiopia. He described Ethiopia's strategies in linking health and climate. He reported on collaboration between the Federal Ministry of Health and the National Meteorological Agency in the use of weather information to forecast disease outbreaks particularly meningitis, malaria and acute watery diarrhea. He also reported on the Meningitis Environmental Risk Information Technologies (MERIT) Ethiopia Project and its four key areas of focus: socio-economic impacts of disease; determinants and risk factors of epidemic outbreaks; education and training; and disease surveillance.

Madagascar

The Madagascar Climate and Health Working Group (CHWG) took the lead to invite the CHWGs of Kenya and of Ethiopia to participate as part of the team in the Integrated Research Partnerships for Malaria Control in Africa (IPMA), which is a call for proposal by the International Development Research Center (IDRC, Canada). The objective is to support the emergence of an effective pan-African cooperation for integrated research on malaria. More information is available from:
http://www.idrc.ca/en/ev-151439-201-1-DO_TOPIC.html

Kenya

The Kenya Medical Research Institute has launched a tool aimed at predicting malaria outbreaks in any area of East African two to three months before they occur.

In collaboration with scientists from the Kenya Meteorological Department and the International Centre for Insect Physiology and Ecology, the institute has designed a scientific model that uses weather predictions, information about the reproductive mechanisms of mosquitoes, and data on geographical formations of particular areas to predict surges in malaria.

So far, the model has worked effectively in tests in western areas of Kenya, including Nyanza province, Western province and the Rift Valley province, as well as in Tanzania and Uganda.

Read the full story at:
http://www.alertnet.org/db/an_art/60167/2010/04/5-110206-1.htm

Interview



Marie Clémence Rakotoarivony (MCR) is the head of the malaria surveillance unit at the malaria program of the Malagasy Ministry of Health. An alumna of the 2009 Summer Institute on Climate Information for Public Health, Rakotoarivony was one of the main organizers of and participated in the two climate and health trainings recently held in Madagascar in partnership with the WMO, the WHO and the IRI.

Rakotoarivony was interviewed in March 2010 by IRI Laurence Cibrelus (LC), at the end of the second Malagasy training.

MCR: My name is Marie Clémence Rakotoarivony. I work at the malaria program in Madagascar, and I am the focal point for malaria in the Malagasy Climate and Health Working Group (CHWG). I also participated in the 2009 Summer Institute on Climate Information for Pubic Health in NY.

LC: What did you think of the Summer Institute in New York?

MCR: The Summer Institute was really a great opportunity for me to acquire new knowledge on climate and health, and I think that both my work and the CHWG benefited from this. It also helped me by developing my network, since I stayed in touch with students of the Summer Institute 2009, especially my colleague from Mali, who is also Francophone. I will also continue to communicate and engage in collaboration with the participants from Ethiopia, Canada, Switzerland, etc.

LC: The Summer Institute has been adapted, translated in French and implemented in Madagascar. What did you think of this "tailored" training on climate and health?

MCR: This course was very useful, especially for the CHWG. It was also useful for me because I must admit that I did not understand all the lectures that were given during the Summer Institute I attended in NY because of language issues.

LC: What did you think about the fact that the instances used for the Malagasy training were also based on Madagascar data?

MCR: It was very important, and it improved the training a lot. For instance, I learned a lot this time on the interest of NDVI in Madagascar and on how to treat and use the images.

LC: Will you use NDVI data for your project now?

MCR: Yes, we will use this information and we will even go beyond what we learned during the training because I think that other people than those who were trained can benefit from this training. It is therefore necessary to train people within the program and share this work with our colleagues.

LC: So now that you have benefited from trainings on climate and health, are you going to organize such trainings yourself?

MCR: Yes, we have already shared the reports of the trainings with our colleagues, but we will be able to go further now, show them images and tell them how to analyze them, etc.

LC: Would you say that this training on climate and health has changed your professional practice?

MCR: Yes I think so, but beyond the professional practice, this training gave me a more scientific reflection and approach, and I think that we will develop this opportunity.

LC: Thank you, and bravo!

Upcoming Training Courses

Bayesian Disease Mapping in Epidemiology and Public Health. Swiss Tropical and Public Health Institute .July 12 – 23. 2010.
This two-week course will provide a comprehensive introduction to Bayesian spatial modeling in public health and epidemiology. Participants will be introduced to the basics of Bayesian modeling and computation and they will learn how to model areal and geostatistical data for identifying significant covariates and for geographical prediction and mapping of a range of health-related outcomes.

The course will involve theory and computer practical exercises in R, Open BUGS, IDRISI, and OpenGIS.

For more details on the course check our website at http://tinyurl.com/2bzj3dm

Introduction to Infectious Disease Modeling and Its Applications. London School of Hygiene & Tropical Medicine and the Health Agency Centre for Infectious. UK. 5-16 July 2010.

This two-week intensive course is intended to introduce professionals working on infectious diseases in human or animal populations to this exciting and expanding area. The emphasis of the course is on developing a conceptual understanding of the basic methods and on their practical

application, rather than the manipulation of mathematical equations. The course provides numerous practical examples, including real-time modeling of outbreaks, pandemic influenza, sexually transmitted infections, HIV, vector-borne and animal diseases, as well as tuberculosis, measles and rubella.

More information available from:
http://www.lshtm.ac.uk/prospectus/short/siidma.html

International Workshop on ENSO, Decadal Variability and Climate Change in South America: "Trends, Teleconnections and Potential Impacts," Guayaquil, Ecuador 12-14 October 2010.

The objective of the workshop are to review the newest ad available science on ENSO, decadal variability and climate change in South America; to review the estimated trends and changes in ENSO teleconnections and; to discuss the potential climate impacts for the next 0-15 years and their social and economical implications.

More information available from: http://tinyurl.com/36m2eds

Upcoming Events

Forum on Education+Capacity+Building+Climate Change. Dar es Salaam, Tanzania. 27 June - 1 July 2010.

The International START Secretariat, with the support of the Open Society Institute (OSI), is planning a forum on Education, Capacity Building, and Climate Change: A Strategy for Collective Action in Africa, to take place at the White Sands Hotel in Dar es Salaam, Tanzania. The purpose of the forum is to explore the role of African universities in promoting education on climate change adaptation in the areas of research, curriculum development and teacher training, as well as to examine issues of how to more fully engage civil society on adaptation through education aimed outside the university. The forum is designed to solicit input from a diverse range of experts within Africa, with the intention of informing OSI's recent initiative on education and adaptation.

More information at http://start.org/forum2010

Colloquium on Adaptation to Climate Change: Strategies for Exchange and Sharing of Information for the Benefit of Communities, Dakar, Senegal. July 6- 8, 2010.

The topic of this colloquium responds to the fact that having good information is central in providing appropriate solutions to the problems of adaptation to climate change. The issue of sharing knowledge is very important for innovation and decision-making. This colloquium will present a platform for exchanging information and experiences on strategies for information sharing and the implementation of adaptation strategies for climate change. It is organized in the framework of the InfoClim project "participative information platform for the adaptation of vulnerable communities to climate change" with financial support of IDRC and DFID within Climate Change Adaptation in Africa Program (CCAA).

More information on this event is available at:
http://www.cse.sn/seninfoclim/colloqueen.html

ICID II International Conference: Climate, Sustainability and Development in Semi-Arid Regions. Convention Center of Ceará in Fortaleza, Brazil. 16 to 20 August, 2010.

The conference will convene stakeholders around the world to identify and focus action on challenges and opportunities for a better future in the arid and semiarid regions of the world. The aim of ICID is leveraging the best development possible effect of the existing conventions of the United Nations and provide information and advice to governments and all involved to improve the ecological and social sustainability in arid and semiarid.

More information available from:
http://www.icid18.org/?locale=&m=conteudo&a=icid

Climate Research in Service to Society. Denver, Colorado, USA. 24 - 28 October 2011

World Climate Research Program (WCRP) will assemble, for the first time ever, its affiliated research community, and engage other key international research programs in a major Open Science Conference (OSC). Through a unique synthesis of presented research findings, the OSC will assess the current state of knowledge on climate variability and change, identify the most urgent scientific issues and research chal-

lenges, and ascertain how WCRP can best facilitate research and develop partnerships critical for progress.

This represents an exclusive opportunity to assemble the international scientific community to advance understanding and prediction of variability and change of the Earth's physical climate system on all space and time scales.

More info from http://tinyurl.com/23zrqeu

Recent Publications

Climate Change Adaptation: Enabling People Living in Poverty to Adapt. Catherine Pettengell, Global Oxfam International Research Report, April 2010

This report draws on case studies from around the world and on Oxfam's experience working with rural communities. It sets out what is needed to enable people living in poverty to adapt to climate change, as well as the range of interventions that are available. Oxfam's approach brings together experience in the areas of livelihoods, natural resource management, and disaster risk reduction, with robust decision making in order to manage uncertainty and risk, and to build adaptive capacity from household to national and global levels. The report identifies the combined need for bottom-up and top-down processes in order to create the enabling conditions needed for people living in poverty to adapt to climate change.

Available from http://start.org/forum2010

The UNDP Climate Change Country Profiles Improving the Accessibility of Observed and Projected Climate Information for Studies of Climate Change in Developing Countries. C. McSweeney and G. Lizcano. Bulletin of the American Meteorological Society 2010; 91: 157-166

This is an off-the-shelf analysis of IPCC projections for many developing countries in Africa, Asia, Central America and the Caribbean. The authors expect that the article will encourage individuals to undertake studies that otherwise might not have been feasible in terms of the resources or facilities available, and also reduce the replication of similar analyses being undertaken by individuals and organizations, freeing resources for further studies and applications.

Available from: http://tinyurl.com/3ahuwk8

Human Health Perspectives on Climate Change. Christopher J. Portier, Kimberly Thigpen Tart et al., *Environmental Health Perspectives and the National Institute of Environmental Health Sciences,*2010

The purpose of this paper is to identify research needs for all aspects of the research-to-decision-making pathway that will help understand and mitigate the health effects of climate change in USA, as well as ensure that USA choose the healthiest and most efficient approaches to climate change adaptation.

The report highlights 11 key categories of diseases and other health consequences that are occurring or will occur due to climate change. The authors recognize that the health consequences identified in this document are not exhaustive, and that because so many climate change effects are prospective, some of the research needs enumerated may be speculative. As more information becomes available, new research needs may be identified and others rejected, but the author's intent that this report may serve as a baseline discussion from which agencies can proceed.

Available from**:**
http://www.niehs.nih.gov/health/docs/climatereport2010.pdf

IPCC Publishes Leaflets. Intergovernmental Panel on Climate Change .2010



The promotional materials provide details on the goals, outline and timetable of the reports that are currently being prepared under the auspices of the IPCC, namely: the Fifth Assessment Report (AR5); the special report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation; the special report on Renewable Energy Sources and Climate Change Mitigation; and the Task Force on National Greenhouse Gas (GHG) Inventories.

Available from:

http://climate-l.org/2010/04/19/ipcc-publishes-leaflets/



Climate Science Report: The Copenhagen Diagnosis

This report is the synthesis of the most policy relevant climate science published since the close off of material for the last Intergovernmental Panel on Climate Change (IPCC) Assessment Report (AR4).

Available from:
http://www.copenhagendiagnosis.org/

Climate Risk Management for Adaptation to Climate Variability and Change, Baethgen, W. E. *Crop Science*, 50, 2010.

This paper addresses the challenges of integrating climate change into policies for decision makers working in the public and private sectors of developing countries given what the author calls a "double conflict of scales"—(i) climate scenarios are available for periods much farther in the future than the ones typically needed for decision making and (ii) spatial scales of the climate scenarios (global to regional) are coarser than the ones often needed for actual decision making (i.e., local level). The paper proposes that introducing the issue of climate change into policy and development agendas can be facilitated by considering the longer-term variations as part of the continuum of total climate variability (seasons to decades to centuries) and generating information at the temporal scales that are relevant and applicable for particular decisions. It cites as an example IRI's own approach to climate risk management.
Available from: http://tinyurl.com/36hy4px

A Unified Modeling Approach to Climate System Prediction. James Hurrell, Gerald A. Meehl, David Bader, Thomas L. Delworth, Ben Kirtman, and Bruce Wielicki **.** Bulletin of the American Meteorology Society**.** Volume 90, Issue 12 (December 2009)

This article shows a new perspective of a continuum of prediction problems, with a blurring of the distinction between short-term predictions and long-term climate projections. At the heart of this new perspective is the realization that all climate system predictions, regardless of time scale, share common processes and mechanisms; moreover, interactions across time and space scales are fundamental to the climate system itself. Further, just as seasonal-to-interannual predictions start from an estimate of the state of the climate system, there is a growing realization that decadal and longer-term climate predictions could be initialized with estimates of the current observed state of the atmosphere, oceans, cryosphere, and land surface. Even though the prediction problem itself is seamless, the best practical approach to it may be described as unified: models aimed at different time scales and phenomena may have large commonality but place emphasis on different aspects of the system. The potential benefits of this commonality are significant and include improved predictions on all time scales and stronger collaboration and shared knowledge, infrastructure, and technical capabilities among those in the weather and climate prediction communities**.**

Article available from: http://tinyurl.com/26udtjl

Malaria Indicator Survey 2007, Ethiopia: Coverage and Use of Major Malaria Prevention and Control Interventions. Daddi Jima, Asefaw Getachew, Hana Bilak, Richard W Steketee, Paul M Emerson, Patricia M Graves, Teshome Gebre Richard Reithinger, Jimee Hwang**.** *Malaria Journal* 2010, 9:58.

Since mid-2005, the Ethiopian National Malaria Control Programme has considerably scaled-up its malaria prevention and control interventions, demonstrating the impact of strong political will and a committed partnership. The MIS showed, however, that besides sustaining and expanding malaria intervention coverage, efforts will have to be made to increase intervention access and use. With ongoing efforts to sustain and expand malaria intervention coverage, to increase intervention access and use, and with strong involvement of the community, Ethiopia expects to achieve its targets in terms

of coverage and uptake of interventions in the coming years and move towards eliminating malaria.

Available from: http://www.malariajournal.com/content/9/1/58

Mapping Malaria Incidence Distribution that Accounts for Environmental Factors in Maputo Province – Mozambique. Orlando P. Zacarias and Mikael Andersson. *Malaria Journal* 2010, 9:79.

The objective was to explore whether an association exists between the incidence of malaria and some weather parameters in tropical Maputo province, Mozambique. The conclusions are that the incidence of malaria in year 2001 presents an independent spatial pattern for temperature in summer and for rainfall in winter seasons respectively. In 2002, temperature determined the spatial pattern of malaria incidence in the region. Temperature influences the model in cases where both covariates are introduced in winter and summer season. Its influence is extended to the summer model with temperature covariate only. It is reasonable to state that with the occurrence of high temperatures, malaria incidence had certainly escalated in this year.

Related Links

http://ciphan.iri.columbia.edu/

http://www.mailman.columbia.edu/

http://www.ciesin.columbia.edu/

Contact Information

Please contact cipha@iri.columbia.edu to send your comments or materials to be included in the next CIPHA newsletter. **The deadline for documents to be included in the next issue is July 20th, 2010.**

If you have questions about IRI activities, please visit our Home Page: http://portal.iri.columbia.edu/portal/server.pt

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